

## Improving vision outcomes in retinal detachment

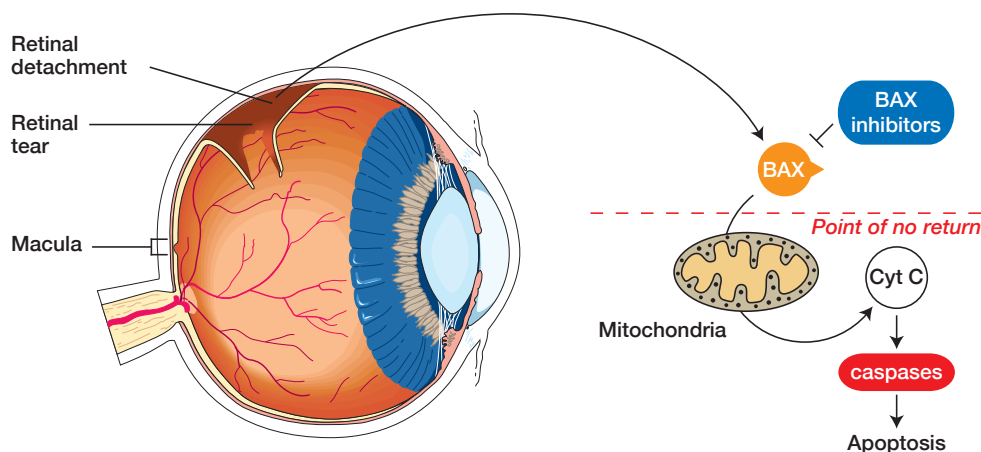
- ▶ Retinal detachment with macular involvement is associated with poor vision outcomes.
- ▶ Vision-limiting photoreceptor loss in retinal detachment is driven by BAX-mediated apoptosis.
- ▶ We seek partners for progressing our small molecules that block BAX-mediated apoptosis as first-in-class therapies for retinal detachment.

### The opportunity

Photoreceptor loss following retinal detachment is due to BAX-mediated apoptosis.

Selective inhibitors of BAX-mediated apoptosis may represent a promising first-in-class strategy for improving vision outcomes in macula-off retinal detachment.

Therapies targeting BAX may also have utility in other back-of-the-eye diseases.



### The technology

Our team has identified multiple small molecule hits from primary phenotypic and targeted screens that inhibit BAX activity.

### Opportunities for partnership

We have:

- World-class expertise in BAX activation at the structural and cellular level.
- Established *in vitro* assays, target ID capability, structure-guided medicinal chemistry and *in vivo* BAX-driven retinal cell death models.

We are seeking:

- Partners experienced in medicinal chemistry, regulatory and development path for small molecule development for ophthalmic indications.
- Investment in our medicinal chemistry program to follow up identified hits; including target ID / mode of action studies and lead optimisation, towards *in vivo* validation.

### Scientific team

#### Professor Guillaume Lessene

Lead, New Medicines and Advanced Technologies Theme

#### Professor David Huang

Laboratory head, Blood Cells and Blood Cancer division

#### Associate Professor Andrew Symons















Vitreoretinal surgeon, Department of Surgery,  
University of Melbourne

#### Dr Leigh Coultas

Laboratory head, Epigenetics and Development division

At the Walter and Eliza Hall Institute our multidisciplinary research teams are focused on solving complex biological questions by integrating expertise in bioinformatics, clinical translation, computational biology, epidemiology, genomics, medicinal chemistry, proteomics, structural biology and systems biology. Our innovative science expands and improves the understanding of human biology and enables the translation of this new knowledge into novel therapies that benefit patients worldwide.

## Project pipeline - available for partnering

	Project	Mode of action*	Target validation	Hit discovery	Lead generation	Lead optimisation	Indication
Cancer	Targeting minor class splicing	Inhibitor					Mutant K-Ras, B-Raf tumours
	Targeting EBV malignancies	Inhibitor					Burkitt's lymphoma
	Treating drug resistant cancers	Inhibitor					Cancer
Immune health and infection	pDC therapy for lupus	Inhibitor					Systemic lupus erythematosus
	RIPK2: Intercepting Inflammation	Inhibitor					Inflammatory bowel disease
	Rethinking CD52	Biologic					Autoimmunity
	SOCS mimetic	Inhibitor					Inflammatory bowel disease
	A complete cure for HBV	Inhibitor					Hepatitis B
	Novel malaria vaccine	Vaccine					Malaria
	Toxoplasma vaccine	Vaccine					Animal health: Toxoplasmosis
	Precision prebiotics	Prebiotic					Inflammation
	Healthy development and ageing	Precision epigenetics	Inhibitor				
FSHD epigenetic therapy		Activator					Facioscapulohumeral dystrophy
Improving retinal detachment outcomes		Inhibitor					Ophthalmology

\*Activator or Inhibitor refers to small molecule compounds

To discuss partnering opportunities, please contact **Dr Anne-Laure Puaux**, Head of Commercialisation, by email [partnering@wehi.edu.au](mailto:partnering@wehi.edu.au).